### Newsletter of the ASA Section

# Evolution, Biology & Society



Volume 14, Number 3 - Winter 2019

# **2020 Officers and Council Members**

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### **Thoughts from the Chair** Russell Schutt – University of Massachusetts,

Boston



Dear Members of the Evolution, Biology and Society Section of ASA:

As I prepared to give a talk on evolutionary biology and sociology to David Sloan Wilson's interdisciplinary course at Binghamton University in March 2018, I decided to check on the treatment of evolution and biology in introductory sociology texts. Simply swiveling around in my office I pulled off the shelf the four recent Introduction to Sociology texts I owned. Not much of a sample, but all from major publishers and in common use. While disappointing, but not surprising, I found that none of the texts had a separate chapter on evolution, sociality, or biology and only a rare index entry on these topics. There were occasional references to Darwin, the connection between biology as related to crime, or the evolution of emotions in support of group life.

Of the four texts, only one acknowledged some relevance of biology and evolution to contemporary social life, but even this acknowledgment was qualified in a way that suggested that it made sense to "deny the importance of [including in this book any serious consideration of the role of] nature." This point is further highlighted by the fact that when I asked the 24 students in my senior seminar on EBS this semester about their prior exposure to the issues that comprise the core of EBS concerns, I found that they had had none. This dearth of attention to such issues in the discipline is reflected in our membership data. **So – let's look at the numbers.**  Although EBS membership actually rose by eight in the past year, our 2019 total of 104 still leaves us as the smallest of ASA's 52 sections. Nor is this a one-time fluke: membership in EBS has declined in most years since a high of 203 in 2008. Our decade-long decline of 49% places us in a virtual tie for the bottom with only one other section (Alcohol, Drugs, and Tobacco lost a comparable fraction of 51%, but still has 140 members), with just one more section (Ethnomethodology and Conversation Analysis) even approaching our pace of decline (down by 39% to 115).

To be Darwinian about it, we are failing in the struggle for existence. We can learn even more from section membership data about the small environmental niche that our section occupies. Compared to the other sections that focus on issues with an intrinsically biological element, our 49% membership decline over the past decade is much worse: Animals and Society (-15%), Sociology of Emotions (-10%), Medical Sociology (-8%), Sociology of Body and Embodiment (unchanged). Compared to other sections whose focus has intersected with EBS topics and issues, we are also in poor shape: Race, Gender, and Class (up 1%), Racial and Ethnic Minorities (up 7%), Sociology of Sex and Gender (unchanged), and History of Sociology itself (unchanged). There is also an instructive comparison to be made with the sections whose focus reflects current controversies in evolutionary biology: Rationality and Society (-20%), Sociology of Culture (-19%), Altruism, Morality, and Social Solidarity (up 71%).

There is one last, telling point about the niche that EBS occupies within the social environment of the ASA. As of the latest 2018 data available on the ASA website, we have the distinction of being the ONLY section whose membership as self-reported in that year is exclusively white. Specifically, while 63% of ASA members selfidentified as white in 2018, the corresponding percentage of EBS section members was 81.25-the highest among all 52 sections—and the percentage who did not identify their race/ethnicity was 18.75-the highest percent "missing" among the sections. That leaves 0.00% of section members in 2018 self-identified as African American, Asian/Asian American, Hispanic/Latino(a), Native American, Other, and Multiple. The comparative picture with regard to gender is also troubling. In an association in which 54% of members identify as female, EBS's 31% was higher than only four other sections: History of Sociology (30%), Rationality and Society (27%), Marxist Sociology (25%), and Mathematical Sociology (24%).

Have I got your attention? I hope so, because I think I would not be doing my job as this year's chair if I didn't alert members to these uncomfortable facts about our ongoing failure to appeal to a larger and wider segment of the ASA membership. The ASA policy is to review membership numbers and section activity every three years and to place on probation—and ultimately close sections that do not sustain a membership of at least 200. And it's not a problem for another day. This is the year that EBS is to be reviewed by ASA Council, so it's hard to envision a section more at risk of the ignominy of probation. Given the decade of decline, it's also hard to avoid worrying that the next review will be our last. And lest you think that the next generation will save us, there's yet more bad news from the section data: EBS is tied for last place in terms of student membership (16%) and almost in first place in emeritus membership (15%).

More to the point – survival of the section requires that EBS broaden its appeal across the discipline, including sparking interest among those who have strongly argued that there is no place in sociology for any form of evolutionary science, biology and neuroscience.

I believe our program for the 2020 ASA Annual Meeting is an important step toward a more evocative, welcoming, and inclusive vision of sociology (as so ably represented by the work of Will Kalkhoff's Electrophysiological Neuroscience Laboratory, described in his article in this newsletter). Three open sessions will showcase research in neurosociology/social neuroscience (organized by Rengin Firat), research about biomarkers (organized by EBS members Bridget Goosby and Jacob Cheadle, but technically only a Medical Sociology session), and papers that debate and analyze theoretical alternatives in EBS (organized by Matthew Brashears), as well as a special 60-minute session cohosted with the sections on Medical Sociology and Altruism, Morality, and Social Solidarity focused on new research and books on human nature (organized by Dawn Robinson).

I also plan to launch a dynamic EBS website, establish a consultant's bureau, increase our connection to other ASA sections to encourage their members to join EBS, and increase the section's connection with the <u>Evolution</u> <u>Institute's</u> rich network of researchers. Throughout the year, we all need to rededicate ourselves to publicizing the section and providing gift memberships to students and others.

I and the other EBS officers and council members welcome your ideas for engaging with our discipline and growing our membership (see the *Challenge* on pp. 6-7)!

### EBS at ASA 2020 - San Francisco

Invited Session Organizer: Dawn T Robinson, University of Georgia **"On Human Nature: New Approaches in the 21st Century"** 

Since moving beyond the nature versus nurture debate, sociological research into the biological bases and consequences of social behavior has generated new insights about human nature. A distinguished panel of sociologists will discuss the newest efforts to conceptualize human nature, drawing on the latest research and two new comprehensive books: Jonathan Turner's *The Sociology of Human Nature* and Nicholas Christakis's *Blueprint: The Evolutionary Origins of a Good Society*. The discussion will focus on recent theoretical arguments regarding the coevolution of genes and culture and also highlight recent empirical research on how social conditions become biologically embedded in individuals, emphasizing the interaction between environment and genetics in relation to health, well-being, and prosocial behavior. This panel discussion is jointly sponsored by the ASA sections on Evolution, Biology and Society, Medical Sociology, and Altruism, Morality, and Social Solidarity.

Panelists:

Marion Blute, Professor Emeritus, University of Toronto Ronald L. Simons, Distinguished Research Professor, University of Georgia

Jonathan H. Turner, University Professor Emeritus, University of California

Open Papers Session I

Organizer: Rengin Bahar Firat, University of California at Riverside

### "Brain, Mind and Society: From Social Neuroscience to Social Experience and Back Again"

Homo sapiens evolved as an exceptionally social species having a dense matrix of social ties that launches human development, interpenetrates human functioning, and underpins human society. The papers in this session illustrate the range of connections between brain, mind, and society and test related hypotheses from the interdisciplinary perspectives of neurosociology and social neuroscience and from substantive areas ranging from criminology to community studies.

Open Papers Session II Organizer: Matthew E. Brashears, University of South Carolina-Columbia

#### "Darwin's Sociological Legacy: Historical and Current Controversies and Accomplishments"

Darwin's theory of evolution by natural selection revolutionized the life sciences in the 19th century and established an explanatory paradigm that has only strengthened over the last 150 years. Yet, the implications for human society adduced from Darwin's theory by early sociologists contributed to some of the most abhorrent social practices of the 20th century. Moreover, early efforts to assign constant evolutionary explanations to highly variable human behavior often ran afoul of reality. For both reasons, evolutionary theory and social science largely parted ways in a disciplinary divorce. But the success of Darwin's theory, and its growing elaboration in the biological sciences, has made a reconciliation effectively inevitable. In the last two decades the development of multi-level selection theory in particular has provided a new foundation for understanding the evolution of human cooperation and altruism that revives one of Darwin's original insights about human behavior. Papers in this session provide diverse perspectives on these

historical and contemporary developments and help to create a new foundation for connecting sociology and evolutionary biology—with compelling examples from recent sociological research using such techniques as social network analysis and multilevel modeling—while also highlighting challenges that remain.

Open Papers Session III Organizers: Bridget J. Goosby and Jacob E. Cheadle, University of Texas at Austin (for Medical Sociology section)

### "Expanding Diversity of Biosocial Research: Opportunities & Challenges"

The use of biological data in sociological research has diversified greatly over the years to the point where various measures can now occupy different places in our theoretical models. With this diversity social scientists are now studying how "what is under the skin" (e.g., genetics, microbiome) affects a range of outcomes and how social conditions "get under the skin" (e.g., epigenetics, HPA-axis, inflammation) to affect health and behavior. New techniques using signals "measured on the skin" (e.g., neuroimaging, electrodermal activity, sleep) are shedding light on how different bodily systems function in response to social circumstances. At the same time, critics question the underlying meaning and interpretations of such measures and raise concerns about biological essentialism and the representation (or lack) of marginalized populations in this research. The papers in this session demonstrate the promises and limitations of biologically-oriented data for understanding how social circumstances affect population health.

# Call for Nominations EBS Section Awards

### Best Book Award

The EBS section invites submissions for the Best Book Award for a book published by section members between 2017 and 2019. Nominations (including selfnominations) should be submitted no later than April 3, 2020. Authors should contact committee members (as listed below) via email indicating that they requested the publisher send a copy of the book to each member. At least one author must be a member of the EBS. Any questions should be directed to the committee chair.

Professor Dudley Poston (chair), Texas A & M University, <u>d-poston@tamu.edu</u>

Professor Ken Hudson, University of South Alabama, <a href="https://ckhudson@southalabama.edu">ckhudson@southalabama.edu</a>

Professor Tomasz Drabowicz, University of Lodz & European University Institute, tomasz.drabowicz@eui.edu

### Best Paper Award for Student Members

The EBS section invites submissions for the Best Paper Award for Student Members published (or soon to be published) between 2017-2019. Co-authored papers, including with faculty, are eligible as long as a student is the first author. The student author must be a section member at the time of submission to qualify for the award. Nominations (including self-nominations) and copies of the paper must be sent electronically to the committee members (as listed below) no later than April 3, 2020.

Professor Joseph Dippong (chair), University of North Carolina at Charlotte, <u>jdippong@uncc.edu</u>

Professor Douglas Marshall, University of South Alabama, <u>dougmarshall@southalabama.edu</u>

Emeritus Professor Marion Blute, University of Toronto, <u>marion.blute@utoronto.ca</u>

## **Call for Newsletter Submissions**

Anne F. Eisenberg – Newsletter Editor afesociologist@gmail.com

I am soliciting submissions for the next issue that will be published in March/April 2020. Specifically – please submit articles, notes or updates for the following sections of the next newsletter:

**<u>Teaching column</u>** - submit an article about how you teach a specific course in EBS topics or integrate EBS topics into traditional substantive courses. Please contact Anne Eisenberg with any ideas you may have for such an article.

☑ **<u>Research notes column</u>** - submit a summary of your current research.

Description Book review – if you have a book you'd like to review for the next newsletter, contact the editor.

Members' news column – submit information about your professional activity – promotions, new jobs, funding, and publications as examples.

Professional news column – submit information about job openings; funding opportunities; workshops/ training opportunities of interest to section members.

Finally – feel free to contact me with ideas, suggestions, comments or questions about this issue or what else the newsletter should include.

# EBS Highlights

### Kent State University Department of Sociology Neurosociology Lab William Kalkhoff

The Electrophysiological Neuroscience Laboratory of Kent (ENLoK) is a relatively new interdisciplinary consortium of faculty at Kent State University. Dr. Will Kalkhoff, the current Executive Director of the ENLoK and former chair of the EBS section, initiated this multidisciplinary effort after receiving generous support from the College of Arts & Sciences and the Sociology Department at Kent. The mantra of the lab is succinctly captured in a quote from the 18<sup>th</sup> century jurist, Sir William Blackstone: "Sciences are of a sociable disposition, and flourish best in the neighborhood of each other."

The staff of the ENLoK consists of an active, committed, and growing team of student and faculty researchers from multiple disciplines. The lab embraces Jonathan Turner's vision that "sociology should strive to be 'a discipline committed to science and engineering"" (Turner 2005:44). In this vein, the central mission of the ENLoK is to advance a rigorous neuro-sociological understanding of dynamic social processes, develop collaborative partnerships with other scholars and community clients, and acquire extramural funding. In just a few years' time, the lab has been able to secure over a half-million dollars in external funding and has forged partnerships with a diverse set of collaborators, from local police to Tibetan monks in India.

The infrastructure of the ENLoK includes an impressive array of technology, all housed within the Sociology Department. We are one of the only sociology departments in the country that has a dedicated multi-room neuroscience laboratory with its own collection of instruments for conducting empirical research in neurosociology.



Dr. Josh Pollock of the ENLoK traveled with collaborators to the Sera Jey Science Center in Byalkuppe India where he used the lab's portable EEG equipment to examine "interbrain synchronization" of monks engaged in monastic debate.

The research technology in the ENLoK includes two powerful systems: (1) a high-density electroencephalograph (EEG) system, and (2) an ADInstruments PowerLab data acquisition system that measures galvanic skin response, heart rate, pulse oximetry and force transduction. The two systems can be used separately or together and are capable of collecting time-locked data from two participants at the same time.

The ENLoK is also in the process of adding a state-of-theart, multi-person Tobii Pro virtual reality (VR) system. The system includes advanced eye-tracking capabilities and two Virtuix Omni omnidirectional treadmills that allow users' avatars to move about in researcher-designed virtual worlds. The physiological data collection systems will be fully integrated with the multi-person VR system once it is running. In addition to the physiological and VR systems, the lab provides access to voice analysis hardware and software as well as a professional driving simulator. Currently the lab is conducting a number of studies looking at the perceptions and behaviors of individuals and teams in threatening environments. While we know a lot about how people and groups behave under 'normal' circumstances we know much less about what happens in demanding, stressful situations. The lab is currently focused on filling this gap. Situations where people's lives and safety are on at stake are an increasingly common part of social. Given the practical and ethical complexities associated with studying threatening situations, the staff of the ENLoK believe VR is an especially promising way to do this.



Dr. Kalkhoff and the ENLoK team are collaborating with police to gain a biobehavioral understanding of how camera monitoring affects performance outcomes during simulated "critical incident" situations domestic disputes and mass shootings.

The lab is currently investigating the synergy of status and authority structures under varying degrees of threat. We are particularly interested in the so-called 'office without knowledge problem.' The situation is actually a fairly common one—where the authority or leader in a group or team situation is actually the person with the *least* knowledge and experience relating to a specific problem. We are looking at how threat level conditions the effects of such factors on the perceptual, physiological, and neurological mediators of teamwork in these kinds of situations. With funding from the Army Research Office, the ENLoK team is conducting an experiment involving a simulated bomb defusal task. The next step is to port the experimental situation over to an immersive, hyper-realistic virtual world.

The lab epitomizes the sentiment of Blackstone's observation that science is at its best when it is "sociable": by bringing together people who might not ordinarily work together in sociology. For example, Dr. Josh Pollock, the lab's Director and resident EEG expert, is currently working with ethnographer Dr. Christopher Dum to examine how beliefs expressed in people's narratives about concealed weapons carry affect their perceptions, neurological responses, and behavior during a simulated first-person shooter task. An ethnographer collecting EEG data represents disciplinary walls coming down—reflecting Jonathan Turner's exhortation to the discipline.

To further this agenda, the Sociology Department at Kent State is developing an undergraduate minor in neurosociology and exploring the possibility of developing a graduate specialization in the area as well. You can visit the ENLoK's website at <u>http://www.kent.edu/sociology/enlok</u>. The "Staff" page includes contact information for Dr. Kalkhoff, Dr. Pollock, and other members of the lab for those who may wish to arrange a visit to the lab and/or discuss possibilities for collaboration. The most recent publications from members of the lab team appear in *Social Psychology Quarterly* (<u>Miller, Kalkhoff, Pollock, and</u> <u>Pfeiffer 2019</u>; Kalkhoff et al. 2020, forthcoming in the March issue) and provide some examples of the kind of neurosociological work they are doing.

### References

Turner, Jonathan H. 2005. "Is Public Sociology Such a Good Idea?" *The American Sociologist* 36:27-45.



Lab assistant, Chloe Miller, tries out the bomb defusal task for the "Team Perception & Performance Under Threat" study.

### Graduate Student Profile - Jill LaPlante

Jill is a first year Ph.D. student at the University of Massachusetts Boston. She has a dually conferred master's in public policy from Maastricht University and the United Nations University, a master's in business administration and a bachelor's in public administration from Southern New Hampshire University. Prior to pursuing a Ph.D. in sociology, she served in the U.S. Navy and worked in both the public and private sectors. Underlying her diverse experience is a passionate curiosity for discovering what makes a good society and how to achieve it. Jill's immersion in multiple disciplines and professional settings cultivated an integrated perspective to sociology.

Her interest in evolution, biology and society is influenced by evolutionary psychology and behavioral economics. Findings from these fields shaped her belief that an understanding of human behavior should be congruent with biological history. Jill hopes to contribute theoretically by situating her research within a scaffold of consensual findings across the social sciences and on a foundation of evidence from biology and evolution. Her vision of horizontal and vertical synthesis is inspired by a short 1963 essay by Bernard Forscher, "Chaos in the Brickyard," which describes the predicament in academia of placing strong emphasis on generating pieces of data (bricks), and less emphasis on connecting these data in a coherent and useful manner (a building made from bricks). Her research interest is in cooperation, specifically in exploring how individuals maximize the benefits of group belonging while minimizing the disparagement of out-group members. In her dissertation, she aims to investigate how individuals navigate cooperation under the competing pressures of rationality, emotional adaptions (ex: gratitude, indignation, guilt), desire for social status and need for human connection.

### Chair's Challenge Russell K. Schutt

The purpose of this "challenge" is to encourage a dialogue, to be presented in future issues of our newsletter, concerning the role of EBS topics and issues for the discipline of sociology. Thus – Anne Eisenberg (newsletter editor) and I invite responses to my comments below. Tell us how YOU think exploring our biological, evolutionary, and spatial connections can enhance sociological understanding in the classroom, in public policy, and in our research.

I am optimistic about our prospects for success--about EBS becoming a central element of the sociological imagination-- for a number of reasons. First is the enthusiasm of my current senior seminar students for learning about EBS through the lens of sociologist Nicholas Christakis's (2019) *Blueprint: The Evolutionary*  *Origins of a Good Society* (see my review, starting on p. 7) and building their capstone papers on a foundation that takes into account human biology and its evolution, as well as the power of culture and the implications of their intersection. My diverse students (35% of the current 23 are African American, 22% are Hispanic, 57% are women), find that the connections we discuss between our sociality and evolved biology explain their own life experiences. From relations with their pets to connections at work, from trips to Tanzania to the pain of social loss, they readily see the applicability of EBS concepts to social life. **Share your stories of teaching EBS topics within other classes or as stand-alone classes.** 

Also important for the future of our section is the profusion and popularity of books for the educated public that focus on the biological and evolutionary underpinnings of human sociality and its significance for understanding human functioning. A number of books have been mentioned throughout the newsletter (see in particular those at the start of my book review that starts on p. 7). **Submit a book review of a text or book that provides equally relevant and evocative integration of EBS topics with the social**.

As EBS topics require interdisciplinary discussions, research collaborations with scholars in the fields of psychology, psychiatry, and neuroscience (among others) are imperative. Interdisciplinary recognition of the importance of EBS-based perspectives keeps growing and connections with sociology should multiply as a result. And as I write this, today's *Boston Globe* (10/20/19:E5) carries a story about the growing recognition in AI research of the importance of cross-species understanding of emotions and social connections. **Tell us about your research that crosses disciplinary boundaries** (see William Kalkhoff's description of Kent State's neurosociology lab).

And, finally - before we can hope to secure the collegial recognition we deserve in the present, we have to learn from the mistakes of the past that so thoroughly ruptured what was an initial close interdisciplinary connection. You know the basic outlines of that history. Although Auguste Comte conceived of the new "queen science" of sociology resting firmly on a biological foundation, the Lamarckian biology of his day imagined evolution through the inheritance of acquired characteristics that could therefore be shaped through a conscious process. Even before Darwin's publication of his theory of natural selection, Herbert Spencer—widely considered the leading sociologist of his time-had begun to popularize "survival of the fittest" as instead driving evolution. Soon after Darwin's Origin of Species by Means of Natural Selection appeared (1859), his cousin Francis Galton (1869) and others—Spencer still first among them—applied it to human affairs and launched the eugenics movement and what became

known as Social Darwinism. The *New York Times* (1883) editorialized about sociology as "The Selfish Science" and most sociologists turned away from the Spencerian logic. But the die was now cast for the ideological distortions and moral outrages of colonialism, racism, and Nazism to be conceptually joined at the hip with evolutionary biology (for a more detailed history, see Schutt and Turner 2019).

There was always another path away from the Spencerian logic, and it was Charles Darwin himself who emphasized it when he published The Descent of Man (1871) more than ten years after Origin. Recognizing the ubiquity of human altruism—"social habits, which lead him to aid and defend his fellows"-Darwin (1989[1877]:52) reasoned that *Homo sapiens* evolved in groups and so developed a biology that served to maintain group cohesion and strengthen bonds beyond those based on kinship: The "social instinct" is a more powerful influence on behavior than "the base principal of selfishness" (Darwin 1989[1877]:125). At the time there was no scientific understanding of the underlying genetic, neurobiological, and other physiological processes, but Russian naturalist Peter Kropotkin (1902) found the logic of group selection helped explain the animal behavior he observed in Siberia and his book on the subject was widely discussed at the turn of the last century.

Ultimately, the conflict between an interpretation of Darwin that seemed to support laissez faire capitalism and one that seemed consistent with the predilections of socialists and others with communitarian sympathies (and anarchists like Kropotkin) was won by the former so decisively that the latter did not linger even in sociological discourse. Later in the 20<sup>th</sup> century, evolutionary biologists' development of inclusive fitness theory and then reciprocal altruism as ways to explain altruism as more apparent than real seemed to leave humanity to cope the best it could with its selfish genes, because "we are born selfish" (Dawkins 2016[1976]:4). In the peculiar words of Robert Trivers (1985:81)—who seemed not to know that sociology at least had long ago parted company with evolutionary biology-the exposure of the fallacy of group selection theory meant that "whole worlds of sociology, anthropology, and political science came crashing to the ground."

But the reinvigoration of multilevel selection theory on a more advanced scientific basis has renewed the focus on the evolutionary bases of "mutual aid" among humans and other social species and provides a strong foundation in evolutionary biology for explaining altruistic motivation. While many biologists and kindred spirits in sociology still insist on the selfish gene interpretation of Darwinism, and efforts at paradigmatic change can hardly be said yet to have succeeded, it should be apparent to all that MLST opens sociology to an intersection with evolutionary biology that differs fundamentally from the individualist tenets of selfish gene theory. Renowned primatologist Frans de Waal (2019:99) even opines that "Fortunately, we don't hear much about 'selfish genes' anymore. Buried by a mass of fresh data, the idea that behavior is invariably self-serving has died an inglorious death." And with that recognition necessarily also comes the realization that EBS can broaden its appeal across our discipline, including sparking interest among those who have imagined that there is nowhere to go with evolutionary biology but in the direction of individual self-interest (and social control to limit its harmful effects). The social self is also our biological self!

### Book Review Russell K. Schutt

Reexamining the Connection between Sociology and Biology: A Review of *Blueprint: The Evolutionary Origin of a Good Society, by* Nicholas A. Christakis (2019). New York: Little, Brown Spark By Russell K. Schutt

It has become increasingly difficult in the 21<sup>st</sup> century to walk into a bookstore and not notice the transdisciplinary recognition of social connection as a necessary key for understanding the process of human evolution, the functioning of human bodies and brains, the operation of our minds and the creation of our societies. A profusion of books for the educated public has challenged the false antinomy between nature and nurture and emphasized basic sociological insights. To name just a few: Matthew D. Lieberman (2013), Social: Why Our Brains Are Wired to Connect., Christopher Boehm (2011) Moral Origins: Social Selection and the Evolution of Virtue, Altruism, and Shame, Martin Nowak (2011) SuperCooperators: Altruism, Evolution, and Why We Need Each Other to Succeed, E. O. Wilson (2012) The *Social Conquest of Earth*. David Sloan Wilson (2015) *Does* Altruism Exist? Culture, Genes, and the Welfare of Others, Peter Turchin (2016) Ultrasociety: How 10,000 Years of War Made Humans the Greatest Cooperators on Earth, Robert M. Sapolsky (2017) Behave: The Biology of Humans at Our Best and Worst, and most recently, Frans de Waal (2019) Mama's Last Hug: Animal Emotions and What They Tell Us about Ourselves. Sadly, sociology—the discipline founded on the recognition of the importance of human social connection—has largely been absent from this increasingly crowded new bookshelf.

Of course, sociologists in the EBS section have contributed a great deal to related scholarship, including section luminaries Jonathan H. Turner and Alexandra Maryanski, Rosemary Hopcroft, and Douglas Massey, but the transition to a wider popular audience through trade publishers has rarely occurred. Nicholas A. Christakis and James H. Fowler's (2009) *Connected: The Surprising Power of Our Social Networks and How They Shape Our*  *Lives* was an important exception, but it focused primarily on the science of social network analysis and only secondarily on biological processes and their evolutionary foundation.

But with *Blueprint: The Evolutionary Origins of a Good Society,* Nicholas A. Christakis, MD, PhD, brings sociology squarely into the transdisciplinary conversation in a book that is sure to spark the popular imagination. In the words of Orlando Patterson, the only sociologist (as far as I know) among the 29 public intellectuals whose blurbs of "resounding praise" introduce the book, *"Blueprint* is a timely, powerful, and riveting demonstration of the inherent suite of sensibilities that drive our social life and cultural evolution. An authoritative integration of the social and evolutionary sciences...definitely shift the focus of social inquiry from what differentiates us to our common humanity, and to show that, while we may be primed for conflict, we are also wired for love, friendship, and cooperation."

### **Overview**

*Blueprint's* guiding thesis is that *Homo sapiens* evolved as a socially oriented species, with survival of individuals in an uncertain natural world dependent on functioning of the group in which they lived. The evolved capacity to band together and the behaviors appropriate to social connection are thus written in our genetic inheritance as much as is our ability to walk upright. "The reason for our common humanity is that we have always lived among members of our own species and have evolved to cope with precisely this exigency." (p. 127)

Lest his thesis be interpreted as only the common blandishment that humans are "social animals," Christakis quickly identifies in his preface and first chapter the type of behavior he adduces as implied by his thesis and then specifies its specific dimensions. Thus, our innate proclivities are "primarily good, practically and even morally" (xxi). While some may manipulate our natural "desire for social connection and interpersonal understanding" to encourage xenophobia, it is just as natural to "see ourselves as *all* being part of the same group." (xv, xviii) Specifically, the human behavioral blueprint is a "social suite" with eight features: the capacity to have and recognize individual identity; love for partners and offspring; friendship; social networks; cooperation; preference for own group (in-group bias); mild hierarchy (relative egalitarianism); social learning and teaching.

### Summary

In the rest of *Blueprint's* 12 chapters, Christakis presents evidence for this thesis and elaborates its implications in five focal areas.

*Explaining community success.* From groups of shipwrecked sailors in the 19<sup>th</sup> century and the sordid

history of t *Mutiny on the Bounty* crew to Shackleton's illfated 1915 Antarctic expedition, diverse utopian communities, and 21<sup>st</sup> century Mechanical Turk workers, Christakis adduces evidence that collectives "that seek to abrogate the social suite cannot be as functional as organically evolved ones" (127).

Biological foundations in pair-bonding, parenting, *friendship.* Christakis argues that humans evolved to love their offspring, then their mates, then their biological kin, then their affinal kin (in-laws), and then friends and groups, so he expects these behaviors to be apparent in most hunter-gatherer societies and evident across the societal spectrum. Turning first to the anthropological and archaeological record, Christakis concludes that "the drive to love your partner is universal" (p. 168), but environmental challenges can alter the expression of this element of the social suite and concerted cultural pressures can keep it in abeyance. Friendship evolved, Christakis argues, to encourage cooperation and mutual aid in the face of uncertainty, also leading to a tendency for both genetic and phenotypic homophily. So our cognitive systems supporting alliances with similar others can be "hijacked for vile actions," but "the bigger story is that we are friendly and kind...evolved to live in networks in which we have specific connections to other individuals whom we come to know, love, and like" (pp. 279-280).

Parallels with non-human animals: Neither pairbonding—the internal state of attraction and sexual dependence, nor social monogamy—living together--are common among nonhuman animals. Monogamy in turn encourages egalitarian relations and shared effort in childrearing, alloparental care (grandparents), and overall greater cooperation. But as Christakis reviews the research on animal friendships—focusing on primates, elephants, and whales—it becomes clear that "friendship in animal species serves the stunningly useful purposes of mutual aid and social learning. And it's the foundation of the capacity for an enduring culture." (p. 238).

*Genes and culture:* Genetic influences on sociality in turn encourage more social behavior in the group, thus making sociality an exophenotype. In this way, humans have domesticated animals by selectively favoring nonaggressive members, while human males may have been domesticated by their partners' preference for less aggressive individuals. Humans' ability to cumulatively develop culture that in turn shapes their own environment may be completely unique among species, and has become a powerful force of natural selection in itself. Lactose tolerance among herder populations due to the caloric advantages for adults of drinking milk and monogamy reducing testosterone levels and thereby reducing rates of violence and crime are only two of many examples Christakis reviews.

Theoretical and philosophical implications. Christakis emphasizes that human cooperation advantaged all members of the small bands in which early humans lived, thus creating a basis for altruistic action that transcended kin relations and "back-scratching" reciprocity—and so implicitly criticizing evolutionary psychology's failure to recognize this basic group-based process. Noting the difficulty of maintaining group solidarity in the face of individual desires for selfaggrandizement, Christakis points to the evolution of desires to punish free riders and for restorative justice. A heightened ability to teach and learn—already evident in other social animals-added to humans' ability to develop increasingly complex cultures. In his last chapter, Christakis critiques the four modern philosophical "isms" that are routinely deployed in opposition to efforts to connect the social and biological sciences: Positivism, reductionism, essentialism, and determinism. Finally, he reviews the new technologies of artificial intelligence and gene-editing that could alter the human genetic blueprint. Christakis concludes that our goal should be to preserve the evolutionary blueprint that primes us for love, friendship, and cooperation and be very wary of attempts to engineer society in opposition to it.

#### **Evaluation**

Soaring across the social landscape, burrowing deep into the human body, traversing eons of evolutionary time, Blueprint offers up a dazzling body of evidence in support of the need for sociology to take into account genes as well as environment, neurotransmitters as well as social norms, our species' hunter-gatherer past as well as its technology-enabled present. Testing implications of this "social suite" thesis across multiple dimensions of the social world, Professor Christakis highlights consistencies and explains discrepancies, challenges received wisdom and shatters disciplinary boundaries. No randomized experimental test of a simple hypothesis, *Blueprint* is instead social inquiry across multiple nooks and crannies of our discipline, and social research using methods so mixed that simple QUANgual distinctions seem like child's play by contrast.

It is hard to imagine any reader setting down *Blueprint* without realizing that the conception of "social facts" as somehow wholly understandable without connection to "biological facts" is a sociological reductionism that is just as pernicious as its biological counterpart. Pernicious not only because it flies in the face of both of these continually interpenetrating suites of facts, but because it unmoors our conception of what is right for our society from what makes sense in light of our nature. "A key danger of viewing historical forces as more salient than evolutionary ones in explaining human society is that our species' story then becomes more fragile" (Christakis 2015:419).

But it is easy to recognize that some of *Blueprint*'s most informed readers will be discomfited by its incommensurability with the different variants of the long popularized—and often popular—"selfish gene" interpretation of Darwinism as well as dismayed by its assertion of a biological need for belonging that seems as likely to be expressed in prejudice and xenophobia as in collective efficacy and community spirit. Certainly it goes without saying that in light of the appeal of some theoretical alternatives and the peril of some policy implications, Christakis's evidence must be weighed critically and the nuances of his argument considered fairly.

It is thus immediately reassuring to find that Christakis understands full well he must steer his good ship *Blueprint* between the Scylla of selfish gene theory and the Charybdis of racism and xenophobia. It is thus no surprise that in his preface Christakis (*xvii*) asks, "Can you love your own group without hating everyone else?", that he challenges prejudice and misogyny, and that he acknowledges what can be the *Madness of Crowds* (Mackay 1841).

Still, Christakis acknowledges the challenges the "social suite" thesis confronts as a foundation for a "good society" (pp. 49-50). What is to be made of an evident human propensity for animosity and violence, of environmental circumstances that preclude expression of many elements of the social suite, and of "especially disruptive individuals and dysfunctional cultural elements"? The evidentiary fabric must be pulled very taut to cover the argument's scope. For example, should we be more impressed by the longevity of a few utopian communities exemplifying elements of the social suite (Chapter 3), or by the failure of almost all such communities to respond effectively to the challenges created by a larger society that often lacks those elements? How much do genetics and biology really constrain variation in sociality? Does reciprocal causation through epigenetic processes endanger the blueprint?

At the societal level, the complications are even more readily apparent. Fascist movements systematically seek to exploit group identity to strengthen national and racial commitments and to multiply inter-group antipathies. From Stalinist Russia to Mao's Great Proletarian Cultural Revolution, there are also many examples of the need for group belonging being manipulated at the other end of the political spectrum for purposes widely recognized as bad.

But to recognize these complications is only to call for more research and to stimulate ongoing dialogue. The scope of *Blueprint* is so vast and the questions it raises so profound, that the supporting science already requires more than an encyclopedia for full emendation and stimulates so many more research ideas that it will ultimately fill a virtual cloud with many terabytes of data points. In his own research, sociologist Nicholas Christakis has helped to set the evidentiary table, and in *Blueprint* he has issued the invitation to the transdisciplinary feast; it is time for sociologists from across the discipline to RSVP.

# **EBS Members' News and Updates**

**Jukka Savolainen,** Professor – Wayne State University

Dr. Savolainen, previously Diretor of the National Archive of Criminal Justice Data (ICPSR) has accepted a position at Wayne State University as Professor of Sociology and Criminal Justice.

New Publication:

Felson, R. B., **J. Savolainen**, S. Fry, et al. 2019. "Reactions of Boys and Girls to Sexual Abuse and to Sexual Encounters with Peers." *Journal of Youth Adolescence*.

Marion Blute, Professor Emeritus – University of Toronto

Dr. Blute organized a session entitled "Let's Talk about Sexual Selection" at the biannual meeting of the International Society for the History, Philosophy and Social Studies of Biology held in Oslo, Norway in July 2019.

Presentation (in Oslo): "The Puzzle of what Compensates for the Two-Fold Cost of Sex Solved: The Advantages of Specialization."

New Publications: Forthcoming. "Life History Theory and the Industrial Revolution." A comment on Nicolas Baumard "Psychological Origins of the Industrial Revolution." Behavioral and Brain Sciences.

2019. "Mating Markets: A Naturally Selected Sex Allocation Theory of Sexual Selection." *Biological Theory* 14(2): 103-111.

**Russell Schutt,** Professor – University of Massachusetts Boston – and Lecturer on Psychiatry (part-time), Beth Israel Deaconess Medical Center, Harvard Medical School

Dr. Russell K. Schutt and co-principal investigator, Dr. Matcheri S. Keshavan received grant funding at Beth Israel Deaconess Medical Center of \$3.8 million for their project entitled "Comparative Effectiveness of Cognitive Enhancement Therapy versus Social Skills Training in Serious Mental Illness." For additional information visit – www.pcori.org/research-results/2019/comparativeeffectiveness-cognitive-enhancement-therapy-versussocial-skills.

### 2019 ASA Section Business Meeting Minutes are posted on the Section Website

https://www.asanet.org/asa-communities/sections/evolutionbiology-and-society

# <u>Renew Your Membership!</u>

**Please** renew your membership in our section and encourage your colleagues to join the section! Section membership is important for a variety of reasons, including:

- maintaining our current membership numbers allows us to continue offering one section session each year at the ASA annual meeting;
- increasing our membership allows us to increase the number of exciting activities at the annual meeting
- allows you to receive this most interesting newsletter
- allows you to vote and participate in section activities.